https://www.kqed.org/news/11707191/second-pge-outage-reported-around-ignition-of-deadly-camp-fire.

83. Aided by high winds, the fire spread quickly and soon endangered populated areas. By the night of November 8, an estimated 80 to 90 percent of the nearby town of Paradise was destroyed. Pam Wright, At Least 29 Dead in Wildfire That Destroyed Northern California Town and Is Now the Most Destructive Fire in California History, Weather Channel, Nov. 11, 2018, https://weather.com/news/news/2018-11-09-northern-california-wildfire-camp-fire-paradise. Residents of the town had only a matter of moments to gather their families and attempt to escape the blaze. Many could not escape and tragically perished.

84. Even on its first day, the Camp Fire was vast, as the following photograph shows:



Joshua Stevens, NASA Earth Observatory (Nov. 8, 2018), available at Kasha Patel, Camp Fire Rages In California, NASAEARTHOBSERVATORY.COM, Nov. 8, 2018,

https://earthobservatory.nasa.gov/images/144225/camp-fire-rages-in-california. The fire's growth quickly spread from there.

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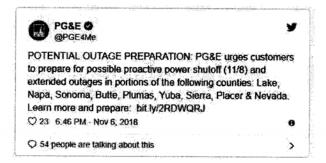
Matthew Bloch, Jugal K. Patel, & Anjali Singhvi, *California Fires Map: Tracking the Spread*, N.Y. TIMES, Nov. 21, 2018, https://www.nytimes.com/interactive/2018/11/11/us/california-firestracker.html.

Fire was not 100% contained until November 25, 2018, after it had consumed more than 153,000 acres, destroyed nearly 14,000 homes and more than 4,800 additional structures. Joseph Geha, *Deadly Camp Fire Now 100 Percent Contained, Fire Officials Say*, MERCURY NEWS, Nov. 25, 2018, https://www.mercurynews.com/2018/11/25/deadly-camp-fire-now-100-percent-contained-fire-officials-say/.

86. More importantly, the fires resulted in a tremendous loss of human life. The official search for those that died in the blaze was concluded on November 29, with 88 confirmed dead and nearly 200 still listed as missing. Thomas Fuller, *Three Weeks After Fire, Official Search for Dead Is Completed*, N.Y. TIMES, Nov. 29, 2018, https://www.nytimes.com/2018/11/29/us/victims-california-fires-missing.html. Some burned in their homes, among their possessions. Others were cooked in their superheated cars while attempting to escape. None *had* to die.

87. PG&E was aware in advance of the Camp Fire of the extreme fire danger presented by weather conditions on November 8, 2018. Two days earlier, on November 6, PG&E activated its Emergency Operations Center (EOC) "due to forecasted weather conditions with increasing fire risk." PG&E, 2018 Resolution ESRB-8 Compliance Report to CPUC, Nov. 27, 2018.

88. PG&E then began notifying customers that it might be shutting down power in certain Northern California counties on November 8, 2018 due to forecasted high winds and low humidity:



PG&E followed up with 17 additional warnings over the next two days advising that it was going to shut off power on the morning of November 8. PG&E's warnings referenced forecasts of sustained winds of 20 to 30 miles per hour, with gusts of 40 to 50 mph overnight Wednesday into Thursday, and lasting until late afternoon. Matthias Gafni, PG&E Power Lines May Have Sparked Deadly Camp Fire, According to Radio Transmissions, Mercury News, Nov. 9, 2018, https://www.mercurynews.com/2018/11/09/pge-power-lines-may-have-sparked-deadly-butte-county-wildfire-according-to-radio-transmissions/.

89. At 7:56 a.m. on the morning of November 8, 2018 – over an hour after the Camp Fire had already started – PG&E was still reporting that it might be shutting off power due to the "potential extreme fire danger":

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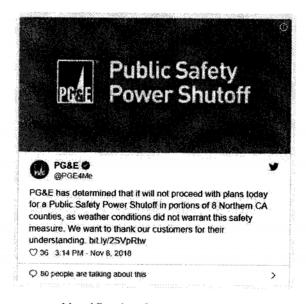
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ADVISORY FOR THURSDAY (11/8): Due to evolving weather & potential extreme fire danger, PG&E may proactively shutoff power for safety to some customers in parts of (counties): Lake, Napa, Butte, Plumas, Yuba, Sierra, Placer and Nevada. Learn more: https://t.co/OkH27t2G52

— PG&E (@PGE4Me) November 8, 2018

PG&E Official Account, Twitter.com (Nov. 8, 2018).

90. Despite these warnings, its own assessment of the potential for extreme fire danger, and the fact that the Camp Fire was actively burning, PG&E added insult to injury by sending a tweet – more than six hours after the Camp Fire starting burning – defending its decision not to shut down power in Butte County that morning.



- 91. PG&E's purported justification for not preemptively shutting off power was that weather conditions did not warrant the power shutoff; however, this ran contrary to PG&E's own stated criteria for conducting preemptive power shutoffs.
- 92. PG&E has represented that it had done an evaluation and developed factors to assess when a shutdown of power was warranted. The Company calls this preemptive shutdown a "Public Safety Power Shutoff" or "PSPS." According to PG&E, no single factor is determinative in PG&E's decision to initiate a PSPS. On the morning the Camp Fire ignited, every one of PG&E's factors supported the cutting of power.

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Factors		Actual Conditions
•	"Extreme" fire danger threat level, as classified by the National Fire Danger Rating System	11/7/18: National Weather Service issued a strong wind advisory, whice will "create critical fire weather danger."
•	A Red Flag Warning declared by the National Weather Service	National Weather Service issued a Re Flag Warning on 11/7/18 (day befor the fire started)
•	Low humidity levels, generally 20 percent and below	Relative humidity average of 23 percent at 6:00 a.m., but dropped to 13 percent by noon
•	Sustained winds above approx. 25 mph and wind gusts in excess of approx. 45 mph	 Sustained winds of 32 mph and gusts up to 52 mph at 4 a.m. on the morning of the fire
•	Site-specific conditions such as temperature, terrain and local climate	Temperature 48°F at 6:00 a.m; Hilly terrain; Hot summer Mediterranean climate
•	Critically dry vegetation that could serve as fuel for a wildfire	 Extended dry fall weather and period of dry north winds causing lov moisture content in live and dry fuels
•	On-the-ground, real-time observations from PG&E field crew	• Unknown

Matthias Gafni, Why Didn't PG&E Shut Down Power In Advance of Deadly Camp Fire? Here's the Data, Mercury News, Nov. 17, 2018, https://www.mercurynews.com/2018/11/17/why-didnt-pge-shut-down-power-in-advance-of-deadly-camp-fire-heres-the-data/.

- 93. PG&E claims that the PSPS plan only applies to power lines that are 70kV or lower, meaning that the Caribou-Palermo 115kV Transmission line which failed near Pulga would have been unaffected by its preemptive de-energization plan. Other power utilities, such as Sempra in San Diego, include 115kV lines in their de-energization plans whereas PG&E does not.
- 94. According to PG&E spokeswoman Megan McFarland, however, the area of the potential "second origin" for the Camp Fire in Concow was a 12kV distribution line and was one of the circuits which "would have been de-energized" in the event of a PG&E pre-emptive power shutoff. *Id*.

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95. On May 6, 2013, a report was sent to the Safety and Enforcement Division of the CPUC from the Liberty Consulting Group ("2013 Liberty Report"), which had been retained to conduct an independent review of capital and operations and maintenance expenditures proposed by PG&E. Liberty Consulting Group, Study of Risk Assessment and PG&E's GRC (2013), available at http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M065/K394/65394210.PDF. The 2013 Liberty Report concluded that: "several aspects of the PG&E distribution system present significant safety issues." It also found: (a) "addressing risks associated with electrical distribution components has been overshadowed by electric transmission and gas facilities;" (b) "addressing aging infrastructure and adding SCADA to the system comprise the major focuses of safety initiatives for the distribution system;" and (c) "current employee/contractor serious injury and fatality levels require significantly greater mitigation."

- i. PG&E's Wires Were Found Highly Susceptible to Failure Due to Age
- 96. One of the first key findings of the 2013 Liberty Report was that PG&E had a "large amount of small size obsolete conductor remaining on PG&E's system." PG&E has 113,000 miles of conductors (a.k.a. wires), and according to the report, over 60 percent of those conductors are highly susceptible to failure. The conductors are very small, and generally more susceptible to breaking than standard size conductors. As the conductor ages, it becomes even more susceptible to breaking. Weather conditions, such as winds and lightning strikes, will also wear a small conductor more than larger ones. For these reasons, "[t]his conductor was once popular, but is now recognized as obsolete, due to its small size."
 - ii. Many of PG&E's Wires Do Not Remotely De-Energize When Down and In a Hazardous State
- 97. A second key finding of the 2013 Liberty Report was that upon review of PG&E's documents, on a daily basis and in 36 percent of cases, PG&E cannot remotely de-energize a downed line and must send someone to the scene to manually turn off the feed. During that time, the downed line is a hazard, and according to the 2013 Liberty Report, this hazard has "contributed to a number of fatalities and injuries."

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iii. The CPUC Announced that Aging Power Poles Are Causing Significant Safety Hazards That Must Be Addressed

98. According to a draft 2017 CPUC Order Instituting Investigation Into the Creation of a Shared Database or Statewide Census of Utility Poles and Conduit:

> Poorly maintained poles and attachments have caused substantial property damage and repeated loss of life in this State. For example, inadequate clearance between communication and power lines, perhaps in conjunction with a broken cable lashing wire, caused the Southern California Guejito Fire of 2007 which (together with the Witch Fire) burned 197,990 acres and caused two deaths. Three more deaths occurred in 2011 when an electrical conductor separated from a pole in high winds, causing a live wire to fall to the ground. At least five more people lost their lives in pole-related failures in 2012 and 2015.

> Unauthorized pole attachments are particularly problematic. A pole overloaded with unauthorized equipment collapsed during windy conditions and started the Malibu Canyon Fire of 2007, destroying and damaging luxury homes and burning over 4500 acres. Windstorms in 2011 knocked down a large number of poles in Southern California, many of which were later found to be weakened by termites, dry rot, and fungal decay.

> Communication and other wires are not infrequently found hanging onto roads or yards. Poles with excessive and/or unauthorized attachments can put utility workers at risk. Facilities deployed in the field may differ from what appears on paper or in a utility's database.

CPUC, Draft Order Instituting Investigation into the Creation of a Shared Database or Statewide Census of Utility Poles and Conduit in California (Agenda ID#15783), available at http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M190/K872/190872933.PDF.

99. In the June 29, 2017 CPUC press release for the Order, the CPUC President Michael Picker stated, "Plain old wooden poles, along with their cousins, the underground conduits, are work

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horses, carrying most of our power and telecommunications. They sometimes get crowded and fail, causing outages and fires because of all the equipment crammed onto them." Further, "[n]ot knowing where all the poles are and who owns them, how loaded they are, how safe they are, and whether they can handle any additional infrastructure, is problematic to both the utilities and to the CPUC. Creating a database of utility poles could help owners track attachments on their poles and manage necessary maintenance and rearrangements and can help the CPUC in our oversight role."

CPUC, Press Release, Jun. 29, 2018,

available at http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M191/K560/191560905.PDF.

- iv. PG&E Failed to Track Its Electrical Asset Conditions, Despite Their Age
- asset management program in Electric Operations." According to the report, "aging infrastructure is best addressed by having a strategic asset management program in place. These types of programs, such as the PAS 55 program, force a detailed and thorough condition assessment survey of the major assets. These types of formal programs also take failure modes into consideration. Long term sustainable plans can then be prepared to address the asset conditions. A sustainable asset management will mitigate system safety risks from aging infrastructure, which constituted a major portion of the safety items in this GRC."
- 101. The 2013 Liberty Report was so concerned about the state of PG&E's aging infrastructure that it advised: "[w]e also recommend that PG&E treat aging infrastructure as an enterprise-level risk."
 - PG&E Knew Its Electrical Equipment Was Unsafe
- 102. PG&E has a long-standing practice of using reclosers throughout its system to automatically restart power after interruptions, even though it knows these devices may cause wildfires. Reclosers send pulses of electricity through power lines whenever an interruption occurs on lines equipped with the devices. According to experts, if power lines are in contact with trees or vegetation, these pulses of electricity can start fires. For this reason, other utilities have changed their operations to protect the public.

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103. The dangers posed by reclosers are so significant that the other two major utilities in California, San Diego Gas & Electric Company and Southern California Edison, have reprogramed their electrical systems during fire seasons to ensure that reclosers do not automatically restart electrical currents after a service interruption. In contrast, PG&E began an experimental pilot program in 2017 in limited parts of California to reprogram its reclosers.

- 104. PG&E knew that its reclosers posed a great risk of wildfire. At a Congressional hearing in 2015, PG&E's Senior Vice President of Electrical Operations, Patrick Hogan, stated that PG&E had the ability to reprogram its reclosers during fire season to not restart power. Patrick Hogan claimed that shutting down power means "you take the reliability hit, but you gain the wildfire benefit." David R. Baker, Power-Line Restart Device Implicated In Past Wildfires, SAN FRANCISCO CHRON., Nov. 1, 2017, available at http://www.sfchronicle.com/bayarea/article/Power-line-restart-device-implicated-in-past-12324764.php. Plaintiff believes that despite this knowledge and ability, PG&E never reprogramed all of its reclosers to prevent wildfires.
- 105. In addition, since prior to 1996, PG&E has known or should have known that its choice of chemical treatments for its poles can also make its equipment unsafe. For example, PG&E uses and has used poles treated with pentachlorophenol in liquefied petroleum gas by the Cellon® process. Those poles tend to experience surface decay below ground regardless of the type of wood used for the poles. As a result, digging inspections are required for poles treated by these processes for all wood types. However, Plaintiff believes that PG&E has failed to conduct the proper inspections and further, when PG&E has been advised of necessary repairs to such poles, PG&E failed to repair the poles in a timely manner. These failures are a breach of PG&E's obligations to the public and have been a cause of fires.

PG&E's "Run to Failure" Approach to Maintenance

106. PG&E has a well-documented history of implementing a "run to failure" approach with its aging infrastructure, whereby it ignores necessary maintenance in order to line its own pockets with excessive profits. According to a filing by the CPUC in May 2013:

However, as we saw in Section V.F.3 above, the Overland Audit explains how PG&E systematically underfunded GT&S integrity management and

maintenance operations for the years 2008 through 2010. PG&E engaged in a "run to failure" strategy whereby it deferred needed maintenance projects and changed the assessment method for several pipelines from ILI to the less informative ECDA approach—all to increase its profits even further beyond its already generous authorized rate of return, which averaged 11.2% between 1996 and 2010.

Given PG&E's excessive profits over the period of the Overland Audit, there is no reason to believe that Overland's example regarding GT&S operations between 2008 and 2010 was unique. The IRP Report supplements the Overland Audit findings with additional examples of PG&E management's commitment to profits over safety. Thus, it is evident that while the example of GT&S underfunding between 2008 and 2010 might be extreme, it was not an isolated incident; rather, it represents the culmination of PG&E management's longstanding policy to squeeze every nickel it could from PG&E gas operations and maintenance, regardless of the long term "run to failure" impacts. And PG&E has offered no evidence to the contrary.

Division of Ratepayer Advocates, Opening Brief, Order Instituting Investigation on the Commission's Own Motion into the Operations and Practices of Pacific Gas and Electric Company to Determine Violations of Public Utilities Code Section 451, General Order 112, and Other Applicable Standards, Law, Rules and Regulations in Connection with the San Bruno Explosion and Fire on September 9, 2010, CPUC Investigation I.12-01-007, (Filed Jan. 12, 2012), available at ftp://ftp2.cpuc.ca.gov/PG&E20150130ResponseToA1312012Ruling/2013/03/SB_GT&S_0039691.pdf.

5. PG&E's Corporate Culture Puts Profits Over Safety

107. Rather than spend the money it obtains from customers for infrastructure maintenance and safety, PG&E funnels this funding to boost its own corporate profits and compensation. This pattern and practice of favoring profits over having a solid and well-maintained infrastructure that